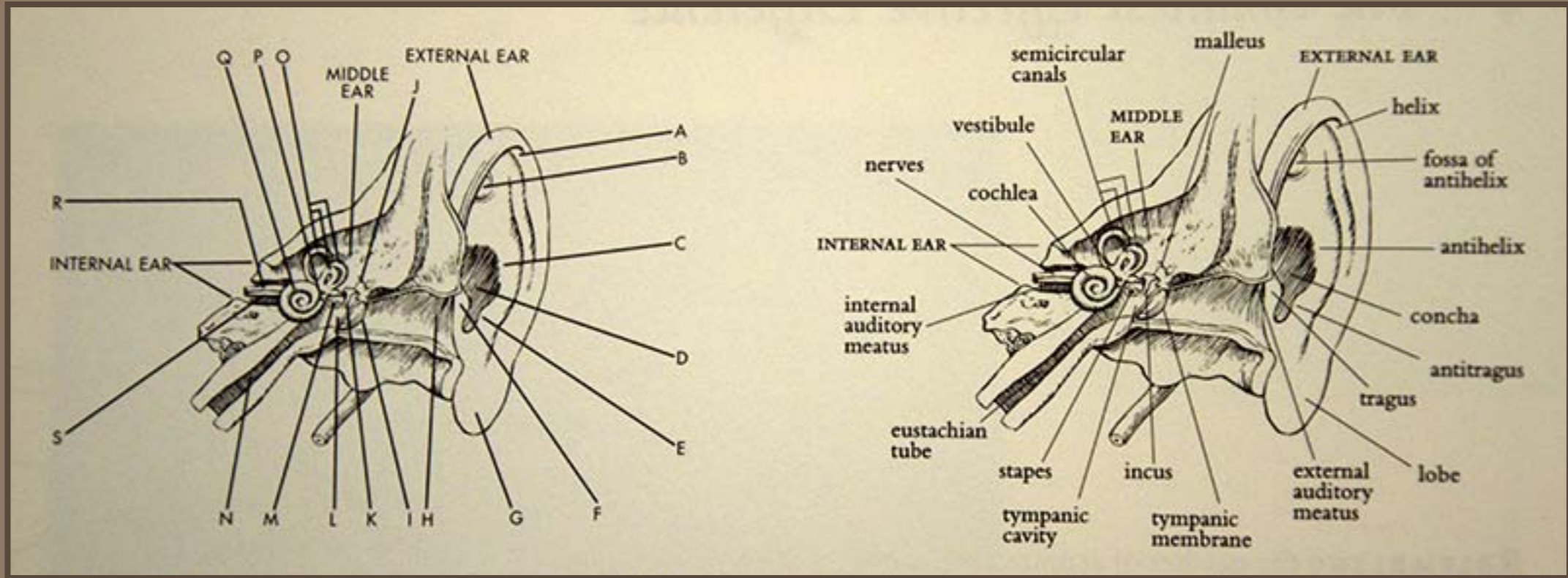
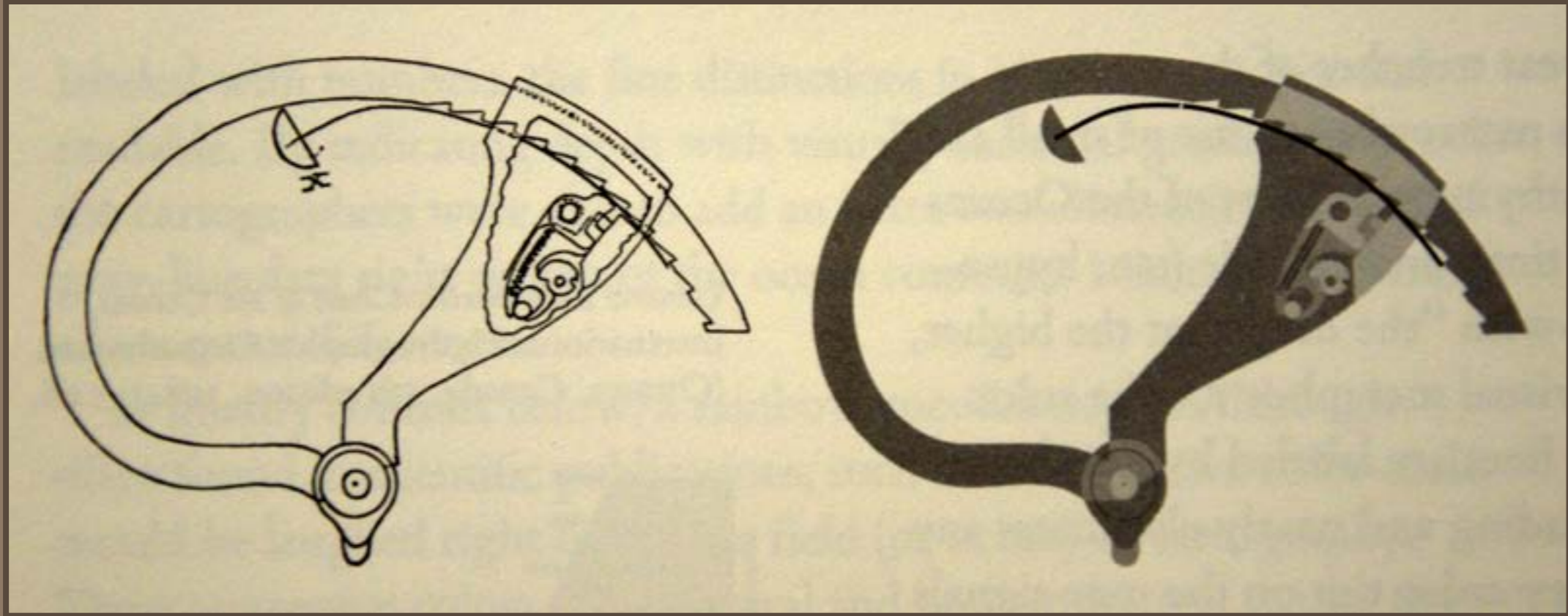


Smallest Effective Difference &
Data to Ink Ratios

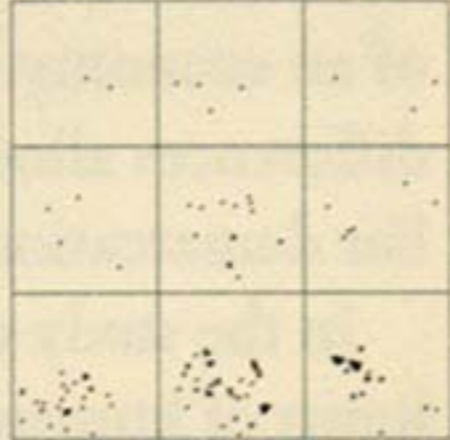
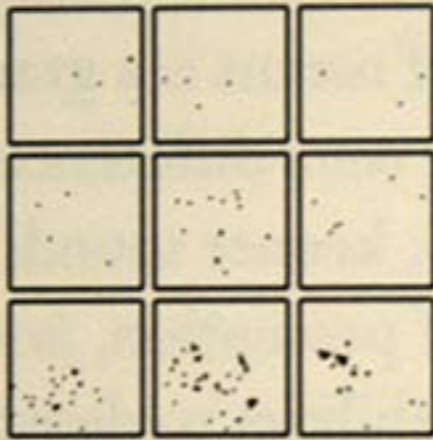
Smallest Effective Difference



Note the difference in line thickness between the illustration on the left and the one on the right. The illustration on the right is easier to see due to the thin lines used.
Also note the use of direct labels.



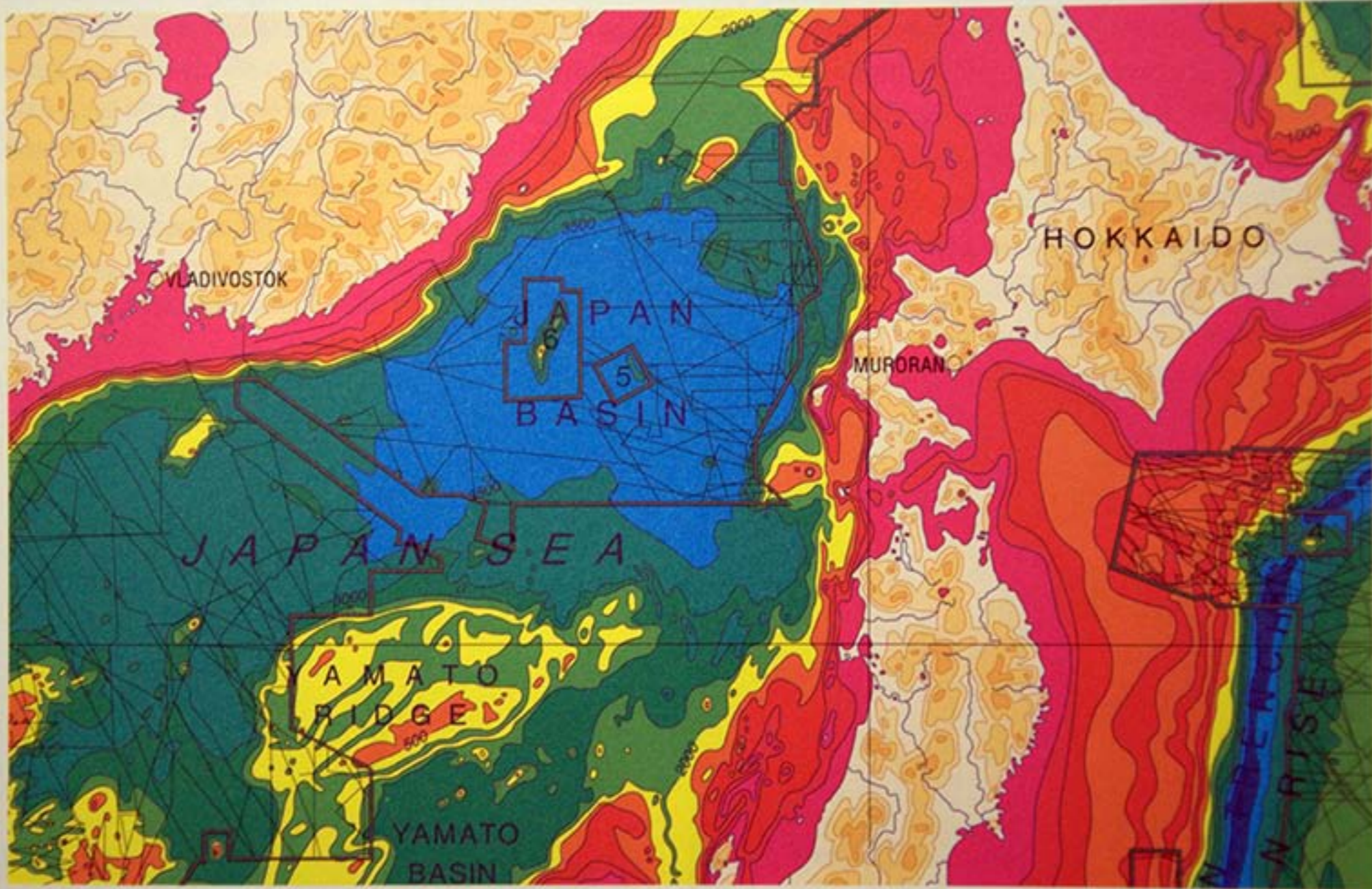
Note that in the graphic on the left there is no difference in line width of value of lines. The lack of any difference makes it difficult to see the distinction that is trying to be conveyed (the device used to unlock Houdini's handcuffs).



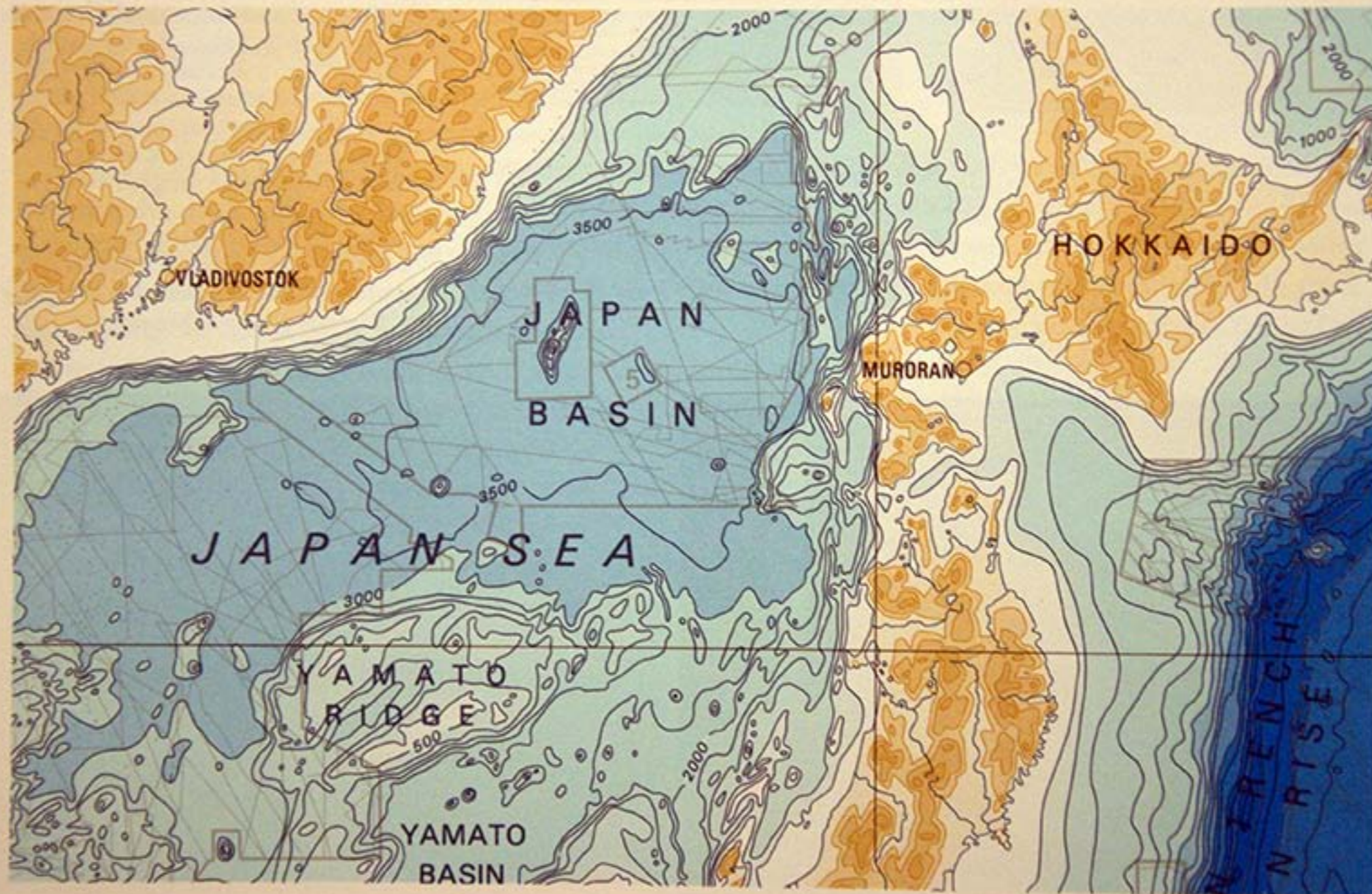
1866	516	9998
758	510	7310
658	150	4465
698	121	3274

1866	516	9998
758	510	7310
658	150	4465
698	121	3274

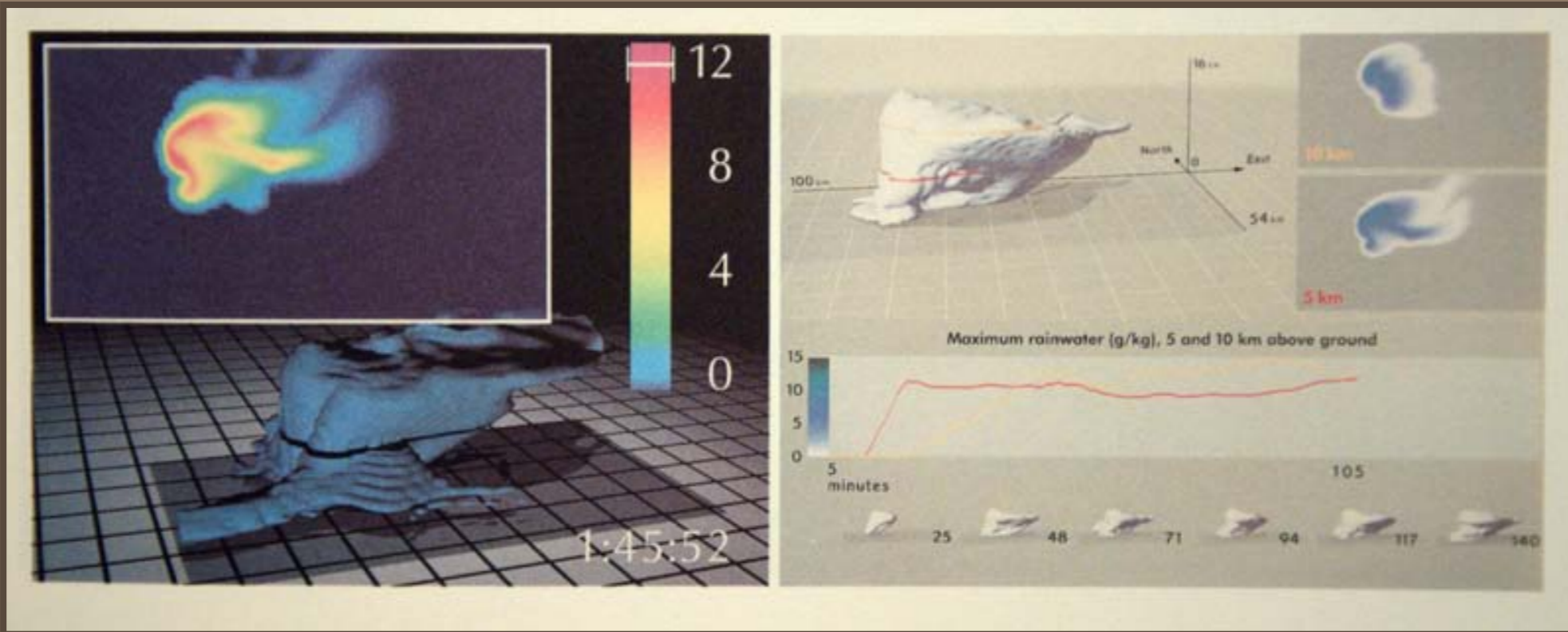
Notice the difference the line weights of the grids have on the legibility of the information itself.



This graphic uses seemingly random colours to represent the depth of water and thick lines that show ship routes made in the process of acquiring the data.



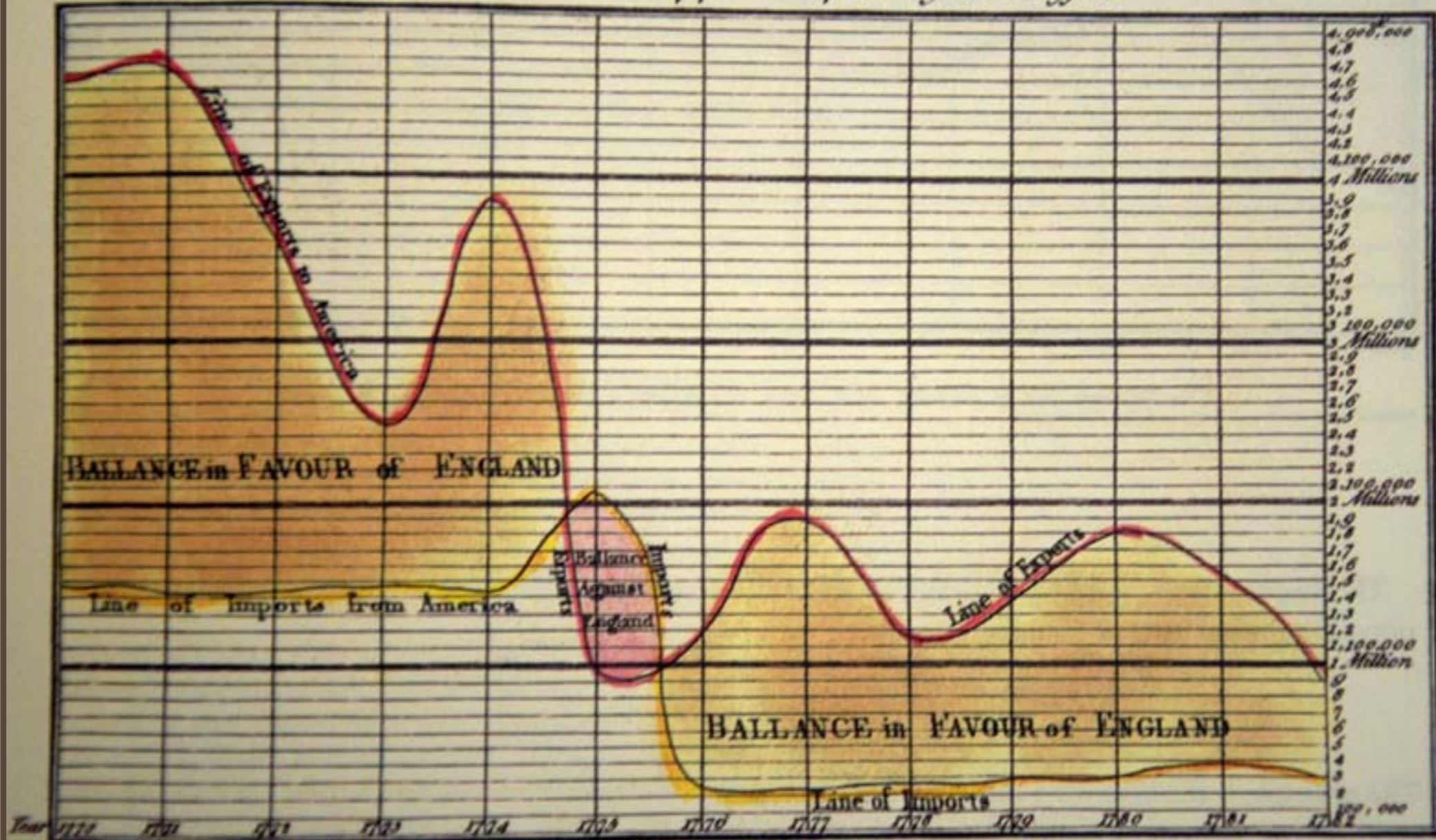
Here the map uses subtle differences in value and possibly saturation to show variation in water depth. The lines that define ship routes are far more discrete than before.



Do you remember this from an earlier discussion?
 See how much clearer the information is on the
 right, now from the context of using smallest
 effective difference as a principle.

Data to Ink Ratios

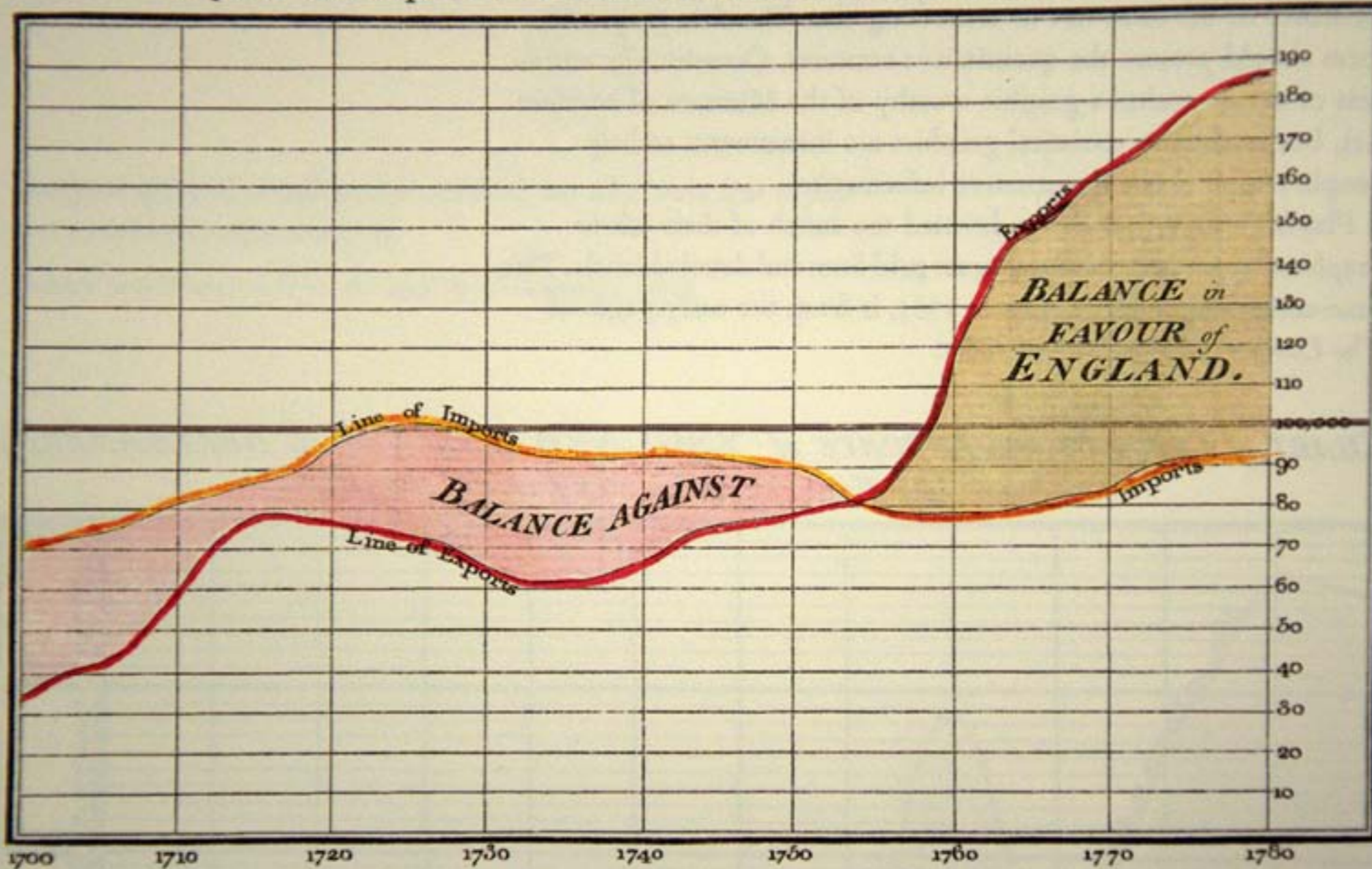
*CHART of IMPORTS and EXPORTS of ENGLAND to and from all NORTH AMERICA
From the Year 1770 to 1782 by W. Playfair*



The Bottom Line is divided into Years the right-hand Line into HUNDRED THOUSAND POUNDS

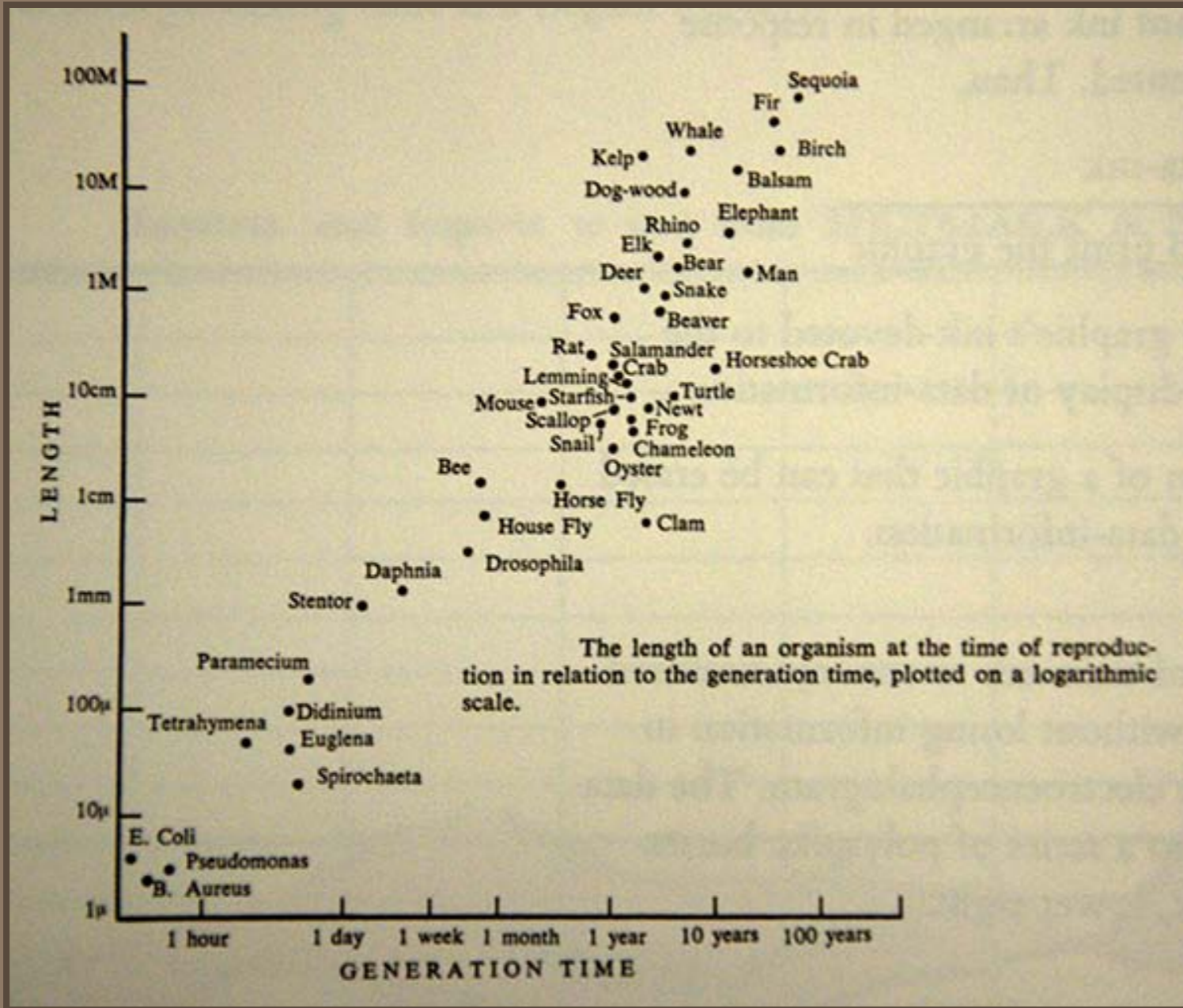
Note the amount of ink dedicated to the chart architecture itself. All the columns and rows are very dark and draw a lot of attention.

Exports and Imports to and from DENMARK & NORWAY from 1700 to 1780

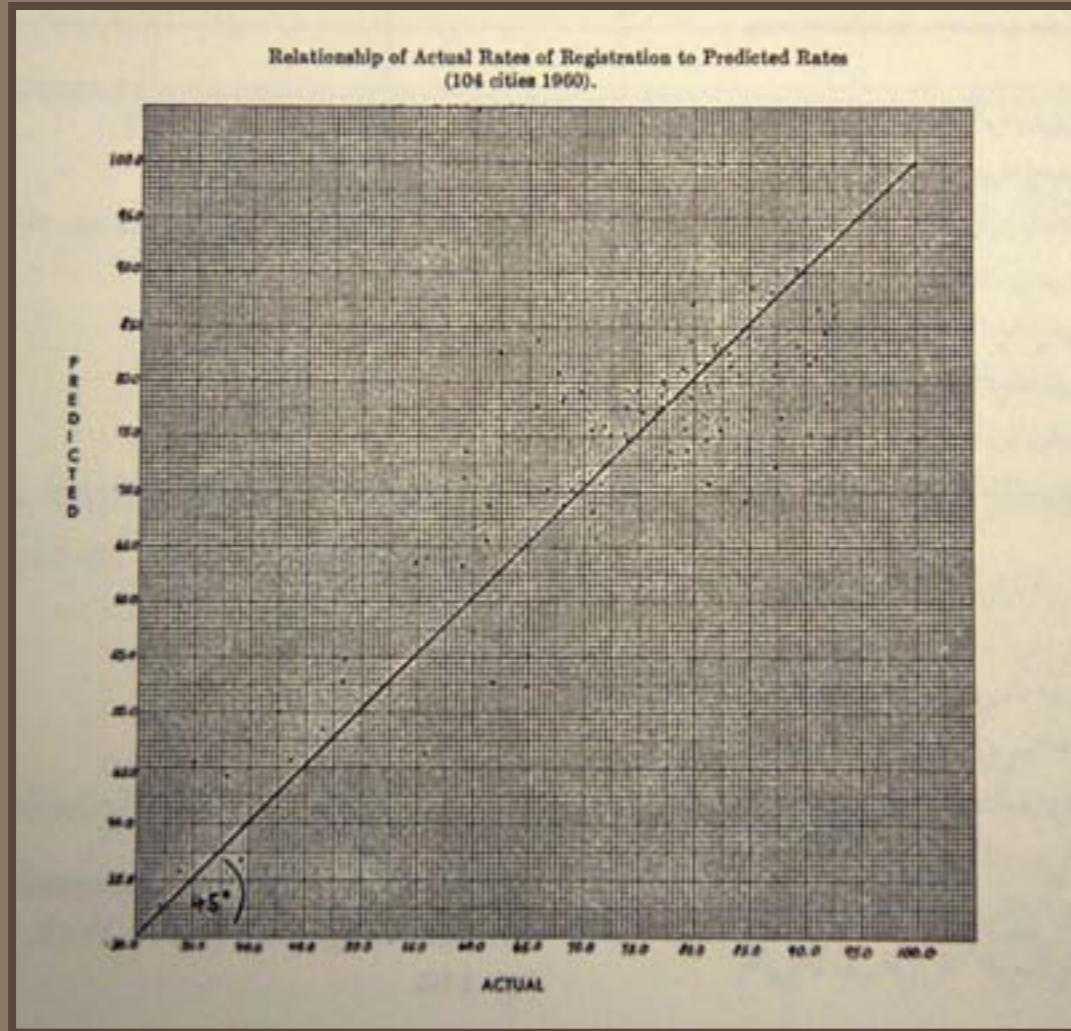


The Bottom line is divided into Years, the Right hand line into L10,000 each.
 Published as the Act directs, 1st May 1786, by W^m Playfair
 No. 352 Strand, London.

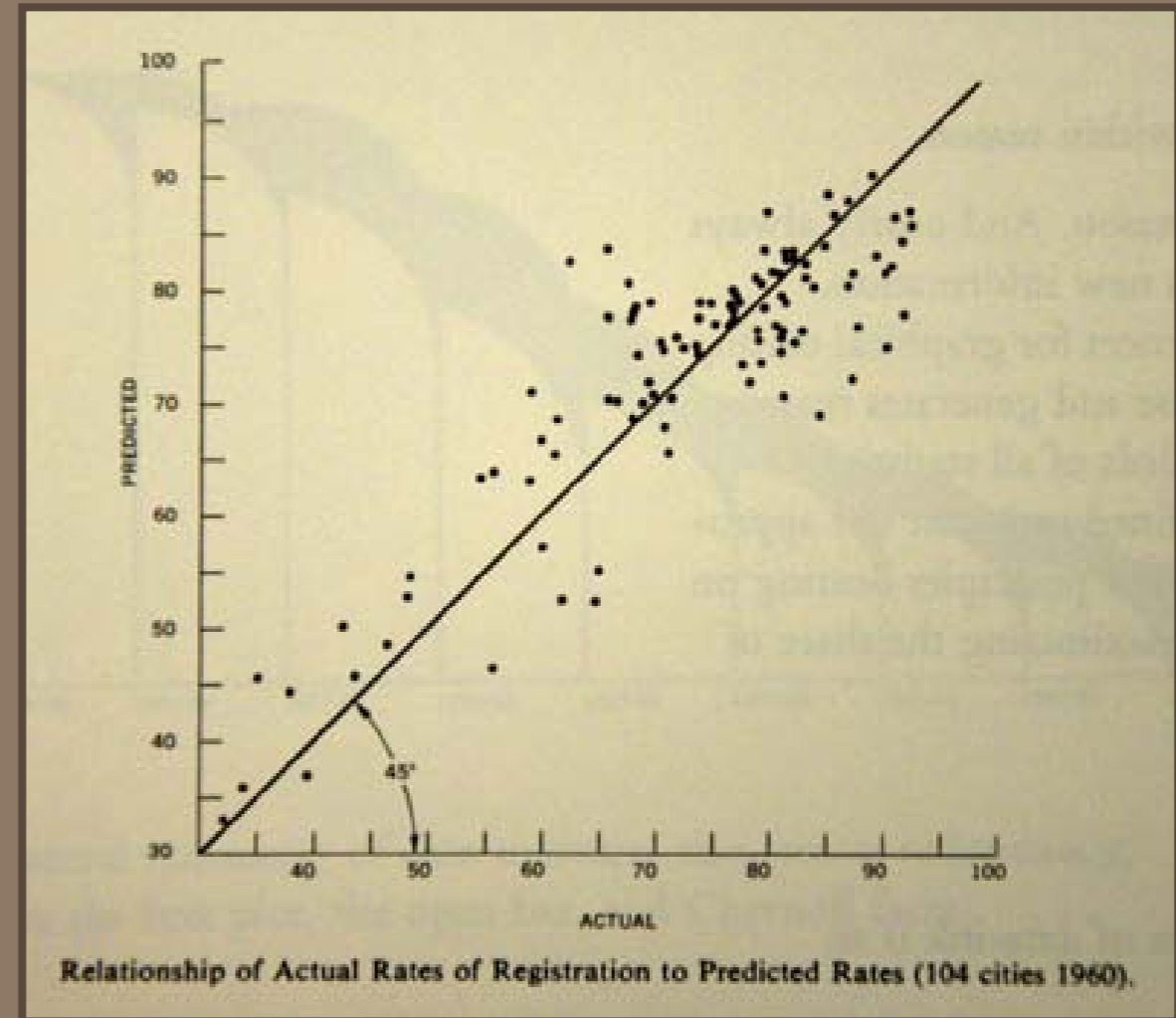
Here a significant improvement without sacrificing information (actually making information clearer). Further improvements?



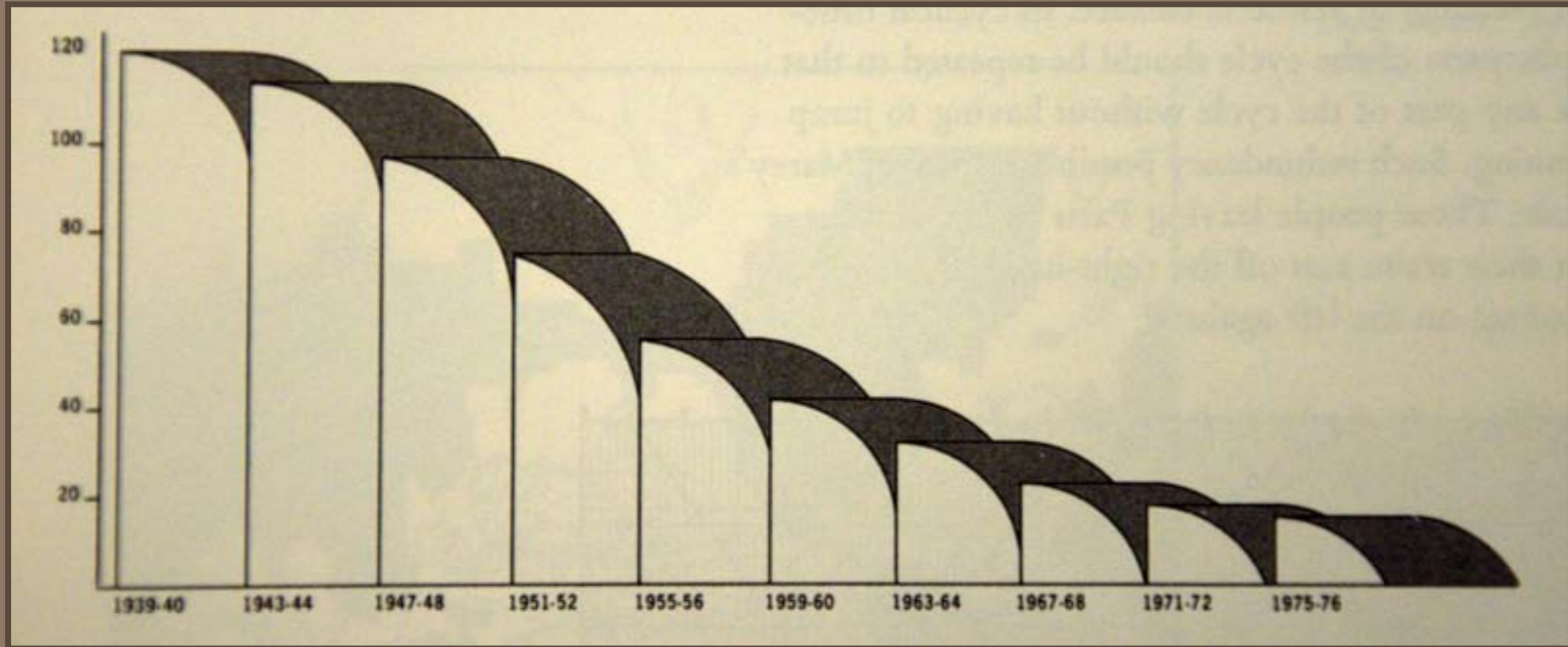
A good example of data to ink ratio, this graphic also uses direct labeling to make the information immediately clear to the viewer.



This is just BAD, look at how dense the graph ink is. It's almost impossible to see the data points.



The same graph without the background grid lines applied, and the data is much clearer.



Finally, an attempt to spruce up this very boring chart ends in relative failure. Note that the 3D effect brings no information value to the chart, and actually confuses the information. Do the numbers go down at the end of every two year increment? No, in fact, it's just decoration. Yuck!

